

Title (en)
METHOD FOR PRODUCING A METAL FILM

Title (de)
VERFAHREN ZUR HERSTELLUNG EINER METALLFOLIE

Title (fr)
PROCÉDÉ DE PRODUCTION D'UNE FEUILLE DE MÉTAL

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Application
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Abstract (en)
[origin: WO2014194880A2] The invention relates to a method for producing a metal film from an alloy having more than 50% nickel, comprising the following method steps: (a) the alloy is melted in volumes of more than one ton in a vacuum induction furnace, or open in an induction or arc furnace, followed by a treatment in a VOD or VLF system, (b) the alloy is then poured off in blocks, electrodes or as continuous casting to form a pre-product, followed by a single or multiple re-melting by means of VAR and/or ESU (c) the pre-product is then annealed as required at temperatures between 800 and 1350°C for 1 hour to 300 hours under air or protection gas, (d) the pre-product is then hot-formed, in particular hot-rolled, at temperatures between 1300 and 600°C, wherein the thickness of the input material is reduced by the factor 1.5 - 200, such that the pre-product has a thickness of 1 to 100 mm after the forming and is not recrystallized and/or recovered and/or (dynamically) recrystallized having a grain size of smaller than 300 µm, (e) the pre-product is then pickled, (f) the pre-product is then cold-formed to produce a film having an end thickness of 10 to 600 µm, in particular of 40 to 150 µm, having a deformation ratio of greater than 90%, (g) the film is then cut into strips of 5 to 300 mm following the cold-forming, (h) the film strips are then annealed under protection gas at temperatures between 600 and 1200°C for 1 second to 5 hours in a continuous furnace, (i) wherein the annealed, film-like material is recrystallized after said annealing and has a high proportion of cubic texture.

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